

III.V. 2. Shoreline Management

III. V. 2.a. Clallam County

1. In 1974, Clallam County enacted a Shoreline Management Master Program (hereafter, Master Program), subsequently amended.

2. The Master Plan designates portions of the area proposed for the terminal facilities as "urban." The underwater offloading pipelines between the end of Ediz Hook and the Green Point tank farm would lie within "urban," "rural" and "conservancy" environments. The bluff approach at Green Point and portions of the tank farm and pump station lie in a conservancy environment. The proposed landfall at Port Williams is within a "rural environment." (TR 27354.7-11, Gilmore.)

3. In a "conservancy" environment, "utility" lines are permitted if underground. Dredging is prohibited. (Master Program, pp. 23-24.)

4. "Utilities" and dredging are permitted in "rural" and "urban" environments, provided that dredging in "rural" environments is not for the purpose of obtaining fill material. (Master Program, pp. 33-37, 56-59.)

5. The Master Program defines "utilities" as "services which produce and carry . . . oil." (Master Plan, pp. C-9/C-10.)

6. Excavations at the bases of cliffs are prohibited in rural environments. (Master Program, p. 31.)

7. In 1979, the Master Program was amended to prohibit energy facilities as defined within RCW 80.50.020 unless "it is demonstrated to the satisfaction of Clallam County . . . that local economic and environmental resources and conditions will be adequately protected from substantial adverse impacts." (Exhibit 395) (Resolution 215). In granting approval of the amendment, the Department of Ecology admonished the County that the amendment was not to be interpreted as permitting the county to veto Findings of the Siting Council. (See letter, Elmer C. Vogel, Deputy Director DOE to Clallam County Commissioner, Richard Lotzgesell, August 10, 1981.)

III. V. 2.b. City Of Port Angeles

1. In 1975, the City of Port Angeles adopted a Shoreline Management Master Program (hereafter, Master Program).

2. The proposed project would be within an "urban" environment in Port Angeles.

3. The proposed project is a "utility."

4. Dredging would be required to emplace the pipeline.

5. "Utilities" and dredging are permitted uses under the Master Program.

6. The Master Program has been amended to prohibit energy facilities as defined in RCW 80.50.020 unless it is demonstrated to the City that resources will be adequately protected. City Ordinance 2065 accomplished this amendment by incorporating a similar provision of the Clallam County Shoreline Management Master Program. (Discussed above in III.V.2.a., finding No. 1.) In giving its approval to the County amendment, the Department of Ecology noted: "In no way is this review process to be interpreted as having a veto authority over the EFSEC contested hearings."

III. V. 2.c. Jefferson County

1. In 1974, Jefferson County and Port Townsend enacted a Shoreline Management Master Program (hereafter, Master Program).

2. The submarine pipeline would lie within "natural" and "conservancy" environments in Jefferson County. (TR 12881, Meyers.)

3. The pipeline is a "utility." (Master Program, Section 5.1401.)

4. "Utilities" are conditional uses in "conservancy" and natural environments. (Master Program, Sections 4.405, 4.505.)

5. Dredging will be required to emplace the pipeline.

6. Dredging is a conditional use in both "natural" and "conservancy" environments. (Master Program, Sections 4.405, 4.505.)

III.V.2.d. Island County

1. Island County enacted on June 26, 1976, a Shoreline Management Master Program (hereafter, Master Program). The Master Program and its subsequent amendments remain in effect.

2. The pipeline route would pass near Polnell Point and Davis Slough (terrestrial). Those areas are designated as "rural" environments in the Master Program.

3. The pipeline route would pass near Point Partridge and Brown Point. The Master Program designates those areas as "shoreline residential" environments.

4. The submarine pipeline route would cross Admiralty Inlet, Saratoga Passage and Davis Slough. The Master Program designates those areas as "aquatic" environments.

5. Dredging would be required for emplacement of the pipeline.

6. Oil pipelines are within the definition of "utilities" in the Master Program.

7. "Utilities" are a primary use in shoreline "residential" and "rural" environments.

8. "Utilities" are not among the enumerated permissible uses in "aquatic" environments.

9. Dredging is a permissible use in shoreline "residential," "rural" and "aquatic" environments provided the conditions of Island County Ordinance 16.21.075(B) are satisfied.

III.V.2.e. Snohomish County

1. In 1974, Snohomish County enacted a Shoreline Management Program (hereafter, Master Program) that has been in effect during the pendency of Application No. 76-2.

2. At each of the following locations, the proposed route passes through areas that are designated "rural" and areas that are designated "conservancy": Davis Slough, West Pass, North and South Forks of the Stillaguamish River and the Pilchuck River. The route passes through a "conservancy" environment at Pilchuck Creek. The route passes through "rural" and "natural" environments at the south bank of the Skykomish River Crossing. (TR 37340, Rice.)

3. The proposed project is a "utility." "Utilities" are permitted in "conservancy" environments. "Utilities" are prohibited in "natural" environments unless "unavoidably necessary." (Snohomish County Shoreline Management Master Program, p. F-65 (1975).)

4. Dredging would be required to emplace the pipeline as proposed. (TR 37345, Rice.)

5. Dredging is permitted in the "rural" environments. Dredging is prohibited in the "conservancy" environments

except as required to maintain existing navigation channels and facilities. Dredging is prohibited in "natural" environments. (Master Plan at F-23.)

6. The proposed project would utilize riprap for shoreline stabilization. (TR 37345, Rice.)

7. Shoreline stabilization is permitted in "rural" and "conservancy" environments. Shoreline stabilization is prohibited in "natural" areas except where necessary to protect existing development. (Master Plan at F-61.)

III. V. 2.f. King County

1. In October, 1976, King County enacted a Shoreline Management Master Program (hereafter, Master Program) which has been amended.

2. The proposed route includes the following stream crossings in King County: Cherry Creek, Harris Creek, Griffin Creek, Tolt River, Tokul Creek and the South Fork, Snoqualmie River. (TR 37745, Peterson.)

3. The Master Program designates the aforementioned locations "conservancy" environments. (TR 37740, Peterson.)

4. The proposed project is a "utility." (King County Ord. 3688, Section 256.)

5. The Master Program permits "utilities" in conservancy environments. (Ord. 3688, Section 611.)

6. The Master Program requires that utility routes be designed to minimize visual impacts. (Ord. 3692, p. 33.)

7. The Applicant proposes a river-crossing method of open-trenching that would require excavation and fill below the ordinary high water mark. (TR 37741, Peterson.)

8. The proposed project does not purport to mitigate dangers to public safety or fisheries resources in King County.

9. The Master Program prohibits fill and excavation below the ordinary high water mark within a conservancy environment, except to mitigate conditions that endanger public safety or fisheries resources. (Ord. 3680, Section 613.)

10. The proposed project would require stream and river bank protection. (TR 37743.)

11. The Master Program prohibits construction of "utility" projects that require extensive stream and river bank shoreline protection. (Ord. 3692, p. 33.)

III. V. 2.g. Kittitas, Grant, Lincoln and Spokane Counties

1. The proposed pipeline would be in accord with applicable provisions of the Shoreline Management Master Programs of the counties of Kittitas, Grant, Lincoln and Spokane.

III. V. 3. Coastal Zone

1. No findings entered.

IV. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

(Includes Hydrostatic Water Withdrawal)

1. Northern Tier has requested water withdrawal allowing it to use approximately 194,000,000 gallons of water to perform hydrostatic testing of its proposed pipeline and associated facilities. After testing procedures have been completed, the water will be discharged usually within a few days and usually to the same water body and at approximately the same location from which the water was withdrawn. To accomplish discharge of the hydrostatic test water and also discharge of stormwater runoff during construction, Northern Tier has requested that the Council issue an NPDES permit for "Temporary" or "Construction" discharges. Northern Tier has also requested a second NPDES permit to establish the terms of allowable pollutant discharges in connection with runoff and tank bottom water to be emitted from the tanker unloading facility and the tank farm during operation of the proposed project. This second permit may be identified as the "Permanent" or "Operational" permit.

2. Northern Tier plans to make its withdrawals and discharges at various points along its Port Angeles to Idaho border route. In the main, the company has not specified locations for water withdrawal or for discharges. The company has

stated that the nature of pipeline construction and testing as well as water conditions require that the company have the maximum possible flexibility in designating withdrawal and discharge points. Problems arising during final design or encountered on the ground during construction may determine the most desirable withdrawal and discharge points, as may the timing of tests which may be determined by speed of construction and varying stream flow. On the other hand, the acceptability of the particular withdrawal or discharge is dependent in a large part upon the location of the particular event.

3. Water that is withdrawn from and later returned to a source (even if the discharge is made at a point identical to that from which the withdrawal was made - a matter not guaranteed in this case) diminishes the source of the impounded water by twice altering the flow volume (or total volume) of the water body. Moreover, impounding the water for a period of hours, days or weeks in a pipe or other facility and then discharging that water together with some additional suspended solids increases the suspended solids content of the source of the impounded water.

4. Northern Tier has not with any specificity indicated the sources from which it intends to obtain water for hydrostatic testing. The company has not shown that water in each of the sources it has generally identified is available

for Northern Tier's use, nor has the company described all existing water rights, withdrawal authorizations, or restrictions which relate to the various sources from which it seeks hydrostatic test water.

5. Water rights unidentified in this proceeding exist on Crab Creek and Cow Creek below Silvan Lake and Sprague Lake, from which Northern Tier proposes to take hydrostatic test water. Low flow periods critical to the rights of downstream users occur from May through October of any calendar year.

6. Northern Tier has not submitted full plans for its withdrawals or discharges and has not established approximate times of commencement for these events.

7. Northern Tier's concern that specific permitting conditions regarding discharge sites and techniques not be presently imposed on it places the Council in the unusual position of not reviewing or being informed of any of the specificities of what it is asked to authorize until after the time for informing the Council of the proposal and for scrutiny in a public forum have passed. Many factors important to a Council determination on the propriety of proposed discharges would not be made known to the Council, under Northern Tier's plan, until 20 days before the discharge dates. The time period would not

afford the Council flexibility in utilizing the services of state agencies with expertise in the subject matter.

8. The findings above in this section are made without the availability of substantial information necessary to properly review and, as necessary, condition the withdrawals and discharges proposed by Northern Tier. Examples of the lack of information have been stated in preceding findings. Site-specific studies have not been done, and normal review, comment and cross-examination procedures have not focused on many aspects of Northern Tier's proposal.

V. MITIGATION

Oil Spills

1. The Council is cognizant of the extension of the mandatory U.S. Coast Guard Vessel Traffic System (VTS) west of Admiralty Inlet to Cape Flattery. This provides for mandatory movement of vessels transiting the U.S. side of the Strait of Juan de Fuca in designated inbound-outbound lanes in conjunction with a defined separation zone, strict application of the Bridge to Bridge Radiotelephone Act, and radar surveillance of all traffic (both by U.S. and Canadian authorities). This is defined as an "active management system" as opposed to the previous "passive management" role in the Strait. It is designed to identify all parties at risk, and to safeguard crews, vessels, and the environment from vessel casualties.

2. The U.S. Coast Guard Commercial Vessel Safety Program provides cradle-to-grave inspection of U.S. flag tankers. This includes plan review prior to start of construction to insure compliance with design standards for hull structure, propulsion units, cargo containment and handling, navigation, life saving and fire fighting equipment, and operating safety. Further inspection is carried out during construction and periodically during the service life of the vessel.

3. Under existing laws, treaties and Presidential Initiative, the Coast Guard boards and examines all foreign flag tankers upon their initial entry into the United States and, as possible, annually thereafter.

4. The U.S. Port and Tanker Safety Act of 1978 requires the Secretary of Transportation to establish a Marine Safety Information System; this responsibility has been assigned to the U.S. Coast Guard. The Marine Safety Information System provides a valuable tool for efficient and effective on-board examination of vessel safety and qualifications. Such inspections are often made only after the vessel arrives at port. The System provides each district office with computer capability to access history of vessel ownership, casualties, pollution incidents, violations of federal safety and pollution regulations, and past boarding examination information to identify areas of special attention.

5. Projected reductions in casualty probability provided through mandatory compliance with the VTS in the Strait may be offset by the increase in tanker traffic calling at the Northern Tier facility. The Council is not in a position to determine this effect, nor has testimony been provided to quantify any projection of such effects.

6. The responsibility to provide a presence of the U.S. Coast Guard sufficient to operate and enforce the programs identified above rests with the federal government. This presence cannot be guaranteed by the state of Washington for the protection of state interests.

7. Strict terminal regulations and surveillance by terminal operating personnel could reduce the potential for accidental oil spills. The record makes reference to this opportunity and indicates such provision is standard practice at in-state offloading facilities. There is no evidence of the scope or depth of regulations that might be proposed by the applicant nor of the manner in which they might be implemented and enforced.

8. A well-designed oil spill contingency plan, while not insuring that spills will not occur, provides rapid response to control and contain accidental spills and minimize damage to the environment. Equipment and logistics are a vital part of such a plan. An outline plan was provided by Northern Tier but it is too abbreviated at this time to assure that the objectives can be met.

9. The proposed pipeline route could be relocated to avoid submarine crossings of Admiralty Inlet and Saratoga Passage. Environmental reasons advanced by the applicant to justify its abandonment of the around-Sound route are specious.

The cross-Sound route presents a configuration posing a particular risk to the state's valuable marine resources. The submarine pipeline design is based on current, soil, liquefaction, seismic and related parameters lower than those which may reasonably be expected to be encountered.

Fire and Explosion

10. During the course of the hearings, references were made to other transshipment terminals, worldwide, which had the capability to handle tank vessels of the size anticipated to call at Port Angeles. The specific criteria for siting such terminals were not presented by any party. The Council is officially aware of the size, location and configuration of the following facilities.

<u>Locale</u>	<u>Terminal</u>	<u>Depth</u>	<u>Vessel Capacity</u>	<u>Distance and Bearing to City Center</u>
Rotterdam	Europoort	23m	250,000 DWT	20km (12.5 mi) W.
Rotterdam	Maasvlakte (Sea Island, 6000 ac. superseding Europoort)	30m	700,000 DWT*	32km (20 mi) W.
Le Havre	Antifer	---	700,000 DWT*	20km 12.5 mi) NW
Bordeaux	LeVerdon	---	250,000 DWT	85km (53 mi) NW
Goteborg	Floating Term.	25m	225,000 DWT	13km (8 mi) W.
Marseilles	Fos	23m	400,000 DWT	40km (25 mi) W.
Genoa	Genoa	---	130,000 DWT	8km (5 mi) W.

*The largest tankers afloat (and calling) are 550,000 DWT.

Genoa	New Offshore Platform	50m	ULCC's	2.8 km beyond old terminals
Bantry	Bantry Bay		500,000 DWT	

11. Port Angeles is the only potential oil port site on the Olympic Peninsula which poses a fire and explosion risk to an urban community. Feasible alternate sites exist west of the city which could mitigate the consequences of fire and explosions, the risks of oil spills from harbor accidents and anchor drops, the displacement of existing harbor uses, the intensification of air quality problems for the city, potential impacts on Olympic Memorial Hospital, and the possibility of damage from geologic and seismic hazards associated with the Hook.

Surface Water Quality

12. To minimize soil loss and to preserve water quality, it would be necessary to develop a temporary erosion-sedimentation control plan equivalent to that described in the King County Conservation District Manual. This should be completed prior to commencement of construction and should apply to all portions of on-site work and associated storage areas and access routes.

13. Existing state (and federal) water quality criteria would be exceeded by the proposed construction activi-

ties in crossing rivers and streams. The most significant of these standards are the turbidity standards which, for Class AA and Class A streams, would be exceeded with any digging or heavy equipment operation in a stream.

14. Approvals for short-term modifications of water quality criteria have been conditioned to attempt to minimize water quality impacts. These conditions include, as appropriate, limitations on design, construction practices, timing, and the establishment of dilution zones. It is appropriate that any short-term modifications be conditioned and granted on a case-by-case basis. The following conditions are reasonable design/construction criteria and could be required of Northern Tier (Asseltine Prefiled 5-10) for mitigative purposes:

(a) Small streams, those with an average annual flow of five cubic feet per second (cfs) or less, or with a flow less than five cfs at the time of crossing, should be crossed in the dry. Because small streams are vulnerable to disturbance and valuable to the fisheries resource, no exceptions should be made to the dry crossing requirement without justification and review of alternate design/construction plans. The method of crossing in the dry would be at the contractor's option, but could include culverting or fluming the stream, boring, tunneling, aerial crossing, and jacking.

(b) Streams larger than five cfs could be crossed in the dry under some circumstances. If the applicant proposes not to cross some of these streams in the dry, an application for short-term modification of the water quality standards could be submitted and approved for each crossing prior to construction. Each application should state why a crossing in the dry is not feasible, and should include design and construction plans for the crossing.

(c) No equipment should be allowed to operate in, or cross through, small streams. Any disturbance of the natural stream channel should be kept to a minimum. If the stream is diverted through a culvert or flume and the bed is trenched, precautions (such as compacting the trench) should be taken to avoid excess turbidity during the actual diversion process and when the stream is returned to its natural channel.

(d) For any streams not crossed in the dry, the water quality standards could be modified on a short-term basis to allow a dilution zone of five stream widths or 500 feet downstream, whichever is less. Beyond this point, the water quality standards should be met. The effect on construction practices would vary, depending upon the nature of the soils in the stream or river bed. In granular strata with few fines, few water quality problems will occur. In stream or river beds with a high fine or silt content, special construction methods would

have to be used to confine turbid water to the immediate construction area. These could include curtaining the construction area, sheet piling and various methods to reduce water velocity. All applications to cross streams "in the wet" should include soil test borings to a depth of four feet below the planned trench bottom. These should be in sufficient number to provide a true representation of soils over the full crossing length.

(e) If the stream crossing is to be wholly or partially in solid rock, less than four feet of cover depth may be allowed. A geologist should verify that solid rock exists before lesser cover is approved.

(f) Dry washes, especially those with any history or potential of flash flooding, should be treated as perennial streams. Scour and bed erosion, as well as bank erosion, should be controlled, and the pipe located and constructed so that pipeline integrity is maintained.

(g) All crossings should be made on a straight reach of stream at an angle as close to 90° as possible. Water quality monitoring should be required during construction. Valves shall be required on each side of each stream having an average annual flow over 20 cfs.

(h) At all stream crossings, bed and bank disturbance should be minimized. Restoration should approximate natural conditions, including trench backfill, shape, gradation, and soil density, conformance to pre-existing contours, with bank and trench protection to 100-year flood level, and adequate riprap in accordance with United States Army Corps of Engineers or State of Washington Department of Transportation standards. Riprap, gabion blankets, and vegetative cover are preferred. Riprap should be used on all slopes steeper than 4:1 or 5:1 and revegetation on all flatter slopes to the 100-year flood level. Vegetation could be used in combination with riprap or gabion blankets. Restored banks should be smooth and continuous.

(i) There should be post-construction inspections to assure that stream and bank integrity are maintained. These should be conducted at least once a year for the first three years, and thereafter, semiannually. Inspections should also be conducted after each ten year flood event.

15. To minimize adverse physical effects on aquatic resources, in-stream construction work is frequently scheduled for those periods of the year when important species are not abundantly present - a period commonly referred to as "fish windows." The periods of upstream migration, spawning, incubation, rearing and downstream migration vary not only between species but between streams. To ascertain the most likely "fish

windows," these use periods must be superimposed over time for each major stream.

16. As a result, the Department of Game submitted the following timing recommendations as a mitigation measure on any in-stream work:

<u>CROSSING</u>	<u>TIMING</u>
Dungeness River	Aug 1 - Aug 31
Siebert, McDonald and Matriotti Creeks	Aug 1 - Sept 15
Other Olympic Peninsula small streams	Aug 1 - Sept 15
Davis Slough & West Pass	June 15 - Aug 15
Pilchuck Creek	July 1 - Aug 31
N. Fork Stillaguamish River	July 1 - 31
S. Fork Stillaguamish River	July 1 - 31
Pilchuck River	July 1 - Oct 31
Skykomish River	July 1 - Aug 15
Tolt River	July 1 - Sept 15
Snoqualmie River	July 1 - Sept 15
S. Fork Snoqualmie River	July 1 - Sept 15
Yakima River	Oct 16 - March 15
Columbia River	July 1 - Oct 15
Church Creek	July 1 - Sept 30
Armstrong Creek and Little Pilchuck Creek	July 1 - Oct 31
French Creek	June 15 - Oct 31

N. Fork Cherry Creek, Cherry Creek, Harris Creek, and Griffin Creek	July 1 - Sept 15
Other Western Washington small streams and wetlands	July 1 - Oct 31
Kittitas County streams and wetlands	July 15 - Oct 15
Cow Creek	June 30 - Sept 30
Other Eastern Washington streams and wetlands	June 30 - Sept 30

Ground Water Quality

17. In some circumstances, a contaminated ground water condition may be corrected by heavy pumping of a well or wells drawing from the polluted aquifer, provided the recharge rate is equal or greater than the withdrawal rate. Where the latter condition does not exist, a series of injection wells may be constructed immediately outside the zone of contamination, and unpolluted water injected at or close to the center of contamination.

18. This process is slow, expensive, uncertain and requires a knowledge of the hydraulic gradient, transmissivity of the water bearing materials and recharge rate. This information is not currently available for any portion of the project site, including the pipeline route.

19. High pumping rate wells of this kind would encourage, and possibly cause, salt water intrusion into the aquifers, particularly near shoreline areas. (TR 35512).

20. Correction is essentially the same as previously described, but requires a line of additional injection wells between the shoreline area and pumped well(s). Correcting the breaching of an artesian zone is even more expensive and time consuming.

21. Preventative measures should be considered wherever a producing or potentially producing aquifer is near a proposed site due to the difficulties from pollution and the high cost of any purification. (TR 16484).

Pipe Exposure

22. In order to assure protection against pipe exposure, maximum scour depths for all streams in western Washington should be calculated using both the one-third method and the tractive force method. (See Section III.K. Rivers and Streams.) Pipe burial depth should be based upon the deeper of the scour depth calculated.

23. For those streams in eastern Washington which are subject to flash floods (and similar in composition and

behavior to streams in the arid regions of the southwestern United States), maximum scour depths should be calculated using both the tractive force method and a calculation of four times the rise in water surface elevation above ordinary low water (37044/9-16). Pipe burial depth should be based upon the deeper of the scour depth calculated.

24. At all stream crossing sites, the top of the pipe should be buried four feet below the maximum scour depth so derived. (Garland PFT 10/23-25).

25. Based on the sinuosity and corresponding meander amplitudes of streams in western Washington, the horizontal distance of maximum subchannel pipe burial depth should be no less than five times the width of the stream channel except where bedrock is encountered in the trench excavation. This applies even to streams which are presently confined by bank stabilization structures such as dikes and riprap. It is not reasonable to assume that streams so confined will remain confined as long as stabilization facilities are maintained; dikes, levees and riprap are commonly breached during floods of lesser magnitude than a 100 year flood (Garland PFT 13/10-18; Norman).

26. Northern Tier's application lacks historical data such as aerial photographs or maps which would indicate the past channel migration and avulsion behavior of the indivi-

dual streams at the proposed crossing sites. These data are necessary for an accurate estimate of future migration rates and potential for avulsion. Based on present local conditions of topography, bank stability and composition, channel configuration, sinuosity, and presence of man-made stabilization structures, the following minimum horizontal distances are appropriate for maximum subchannel burial at the specific crossing sites (Garland PFT 14-20; Norman):

Pilchuck Creek. A distance at least sufficient to account for westward channel migration of up to 400 feet over the next 10 years.

North Fork Stillaguamish. A minimum distance of 1000 feet to the southeast from the valley wall at the northwest end of the crossing.

South Fork Stillaguamish. Between sag bends from a point 200 feet northwest of the north bank, southwest a total distance of 500 feet. Additionally, it will be necessary to repair or remove the row of pilings along the north bank.

Pilchuck River. A distance 10 to 15 feet south of the south bank and into the slope before starting upgrade.

Tolt River. Beneath the entire active channel complex from the top of the existing streambank northwest of the river to the point of intersection of the southwest valley wall and existing valley floor.

Snoqualmie River. Beneath the entire active channel complex, that is, across the entire Snoqualmie Valley flood plain.

27. Exposure of the pipe between the overbend and sag bend at a stream crossing can pose greater integrity concerns than short length exposure of the horizontal buried line. (TR 36008). The slope angle typically proposed by NTPC (1.5 Horizontal:1 Vertical) should be lessened to 2H:1V or 3H:1V (TR 36008, 36064)

28. Where realignment to avoid a wetland is not feasible, directional drilling should be given serious design consideration. Directional drilling of Davis Slough and West Pass appears to be technically feasible. (TR 36021, 36024, 36094, 36101).

29. There are no apparent technical limitations to the use of aerial crossings utilizing pipeline bridges. (Ex. 707) (TR 36025). Extra casing or concrete coating could be used to guard against vandalism. (TR 36025)

Sensitive Areas

30. The primary protective measure for wetlands is planning to avoid them. Within the one-half mile corridor, there should be sufficient latitude to by-pass them. The habitat evaluation procedure, or HEP analysis, is an appropriate tool for identifying secondary mitigation measures for wetland and riparian loss. (TR 36320, 36328, 36346, Ex. 718; 713; 715).

31. To avoid disruption of tile drains without adversely affecting receptor ditches, the recommended burial of the pipeline through the French Creek area of Snohomish County is eight to ten feet deep. (TR 36894-95).

32. Major disruption to habitat and wildlife within wildlife management areas or refuges (i.e., Skagit HMA, Colockum HMA, Gloyd Seeps HMA) could only be eliminated by avoidance of these areas. Seasonality of use by various species of big game and other wildlife, habitat succession, and user groups preclude concise, effective, mitigative measures to assure continued long-range maintenance of habitat and management programs for public benefit.

This aspect would necessitate substantial amendment to the application or submission of a new application.

33. For purposes of public convenience and worker safety, no construction activity should take place when and where lawful hunting is occurring.

Socioeconomics

34. The applicant intends to mitigate potential economic-related impacts associated with pipeline construction by drawing its construction schedule, to the extent possible, so that peak personnel requirements do not occur during the summer tourist season and by assisting the counties in applying for grants and loans. (TR 12709-10 Moriyama)

35. Northern Tier's present lack of information on land transportation would require preparation of a preliminary and final land transportation plan prior to commencement of the construction of the marine terminal facilities on Ediz Hook. (Pittis, TR 26116-18)

36. The Burlingame Bridge across the Dungeness River would have to be reconstructed to HS-20 structural capacity in order to handle Northern Tier truck traffic. (Leach, TR 26139-40)

37. Northern Tier plans to negotiate use, maintenance and improvement agreements for suitable private roads with the owners. (TR 12812-13 Olender)

38. The applicant should comply with procedures recognizing all of the ordinary county permits and/or franchises in order to protect and safely use county roads and right-of-way off the project site. (i.e., Island Co. TR 35441-42)

39. In order to mitigate construction period impacts on Olympic Peninsula law enforcement, Northern Tier should provide funding for six fulltime deputies (one per shift) for the Clallam County Sheriff's Department; nine fulltime officers for the City of Port Angeles Police Department; and one fulltime officer for the Sequim Police Department; each for a five year period commencing six months before construction. Following that period, funding should be provided for one sheriff's deputy and one Port Angeles police officer for the life of the project. Such funding should include money for training, facilities, equipment and support personnel as necessary.

40. If the project is built, Northern Tier should provide Island County sufficient funding for three additional deputies for an 18 month period or until the end of Island County construction and testing, whichever is longer, commencing six months prior to the start of Island County construction. Funding should include ancillary provisions as set forth in finding 39 above.

41. Should the project be certified, Northern Tier must develop approved solid and hazardous waste disposal plans and septic and sewage disposal methods before construction commences. Under certain conditions, the Clallam County Public Utility District's LUD No. 1 may be able to serve the tank farm's permanent water supply needs, obviating any requirement for development of a new source.

42. Should Northern Tier locate in Port Angeles and Clallam County, it has responsibility to initiate and sponsor development of adequate and detailed oil spill, fire, and explosion emergency response plans prior to the commencement of any construction or operation phase. Such plans should include appropriate provisions for communication of incidents to emergency response personnel, response team training and additional equipment necessary for any such emergency created by project siting.

43. Six months in advance of the start of construction (or longer, if more lead time for facilities and personnel placement is required) Northern Tier should furnish the Port Angeles School District, to the extent not covered by state funding, with funds sufficient to retain six teachers, six portable classrooms, and such funds as may be required for concomitant support staffing, supplies, bussing and planning expenses,

and additional costs for a five year period. Northern Tier should, in similar fashion, fund the Sequim School District's cost of obtaining two busses, of planning for contingencies, and of meeting such expenses as may subsequently be demonstrated to result from Northern Tier's presence and not covered by the Basic Education Act.

44. While not insurmountable problems would accrue to Olympic Memorial Hospital at Port Angeles during normal operation, or even during oil spill incidents, hospital functions could be disabled from a major fire or explosion. There is nowhere else for a victim of such an incident, or other sick or injured persons to go for treatment in the immediate area. It may not be appropriate that Northern Tier be made to bear the burden of moving the hospital to a safer location but there is no reason that the hospital should be placed in jeopardy from Northern Tier. The problem posed could be mitigated by relocation but would impose a heavy financial burden on the community or on the applicant.

45. If blasting is required within the vicinity of residential areas, special measures must be used to mitigate noise impact. (TR 13069-71; Applic. III, Sec. 2.6.5.3)

46. Mitigation of effects on cultural resources is not complete unless recovered data and materials are permanent-

ly preserved in the best feasible condition. This requires not only secure, monitored, long-term storage in an appropriate, regulated environment, but initial preparation, continuing maintenance, and accessibility for research or for loan to reputable organizations for display purposes.

47. Maintenance and operation have the potential for adversely affecting significant cultural resources. Additionally, long range effects of construction activities, such as changes in erosional regime and provision of easy access, may result in adverse effects. It is important that long range impacts be mitigated through the development and implementation of a cultural resources management plan.

48. In order to mitigate partially the impacts of the Northern Tier project on park and recreation uses in Port Angeles, additional recreational facilities and additional funds are required. (Frizzell, TR 27661-62.)

49. If issued, any site certification agreement should vest power to construct and operate the designated facilities only in Northern Tier Pipeline Company. Northern Tier should not transfer such a permit without prior approval from the Council. A transfer of common stock sufficient to shift management control of the company is considered a transfer of the permit.

50. If the Northern Tier project is constructed, it would be necessary to relocate certain existing harbor facilities and uses which would be physically displaced on Ediz Hook to another area. A conceptual plan has been developed to mitigate displacement of log storage areas, the Thunderbird boathouse, two boat launching ramps and the pilot station. The plan moves these facilities to the city side of the harbor. The plan includes two rubble mound breakwaters; a water storage area for up to 14 cargo barges; standing booms and anchors to provide for 30 acres of water storage for logs; a 300-boat marina (9,000 linear feet); an eight-lane boat launch ramp (120 linear feet); parking for up to 400 cars (or equal land area for a lesser number of cars and boat trailers); paved road access on or from Lincoln and/or Francis Streets in Port Angeles; and replacement of the Salmon Club facilities. Moorage is contemplated also for vessels larger than sports fishing boats and marina users, including tugs for Northern Tier's tankers, a fireboat, oil skimming vessels, USCG vessels and other large craft. (Hendricks, TR 42103-4.)

51. No application is pending before any federal, state or local agency for construction of the displaced harbor facilities. The necessary permits and processes have not been identified; nor have the substantive standards to be met been identified. (TR 42097-9) The permits may not be obtainable. (Ex. 869, p. 19; TR 42099.)

52. The relocated harbor facilities are themselves major capital projects which might in turn cause significant impacts. No environmental impact assessment, SEPA compliance or other study has been performed to assess adverse impacts of proposed construction or operation of these facilities. (TR 42096)

53. The proposed activities of harbor dredging, creation of parking by landfill on the tidelands or in the water, and the creation of vehicular access to the site are serious concerns which affect whether or not permits can be obtained, and affect the feasibility of construction of the proposed harbor facilities. (Lean, TR 42544-5; Weiner, TR 42554-6; Carr, TR 42134 A-B.)

54. The plan does not identify any alternate locations along Port Angeles Harbor for the displaced Ediz Hook boat launch ramps. (Hendricks, TR 42092-3.) The displacement of existing recreational facilities, including the ramps, moorage, and the Thunderbird Boathouse will create serious impacts.

55. The City of Port Angeles Shoreline Master Program (SMP) applies to proposals for construction of marinas, boat launch ramps, vehicular access and parking located within and adjacent to designated shorelines. The present City of Port Angeles SMP prohibits the filling of tidelands or water for the

purpose of creating additional land and requires that parking be situated on uplands. (Carr, TR 42134 A; Ex. 395.)

56. A condition that permits for the displaced facilities be obtained before Northern Tier may commence construction is favored by Clallam County and the City of Port Angeles.

Liability Coverage

57. Northern Tier has retained a risk management consultant. A specific program covering the exposures during the construction and operating phases of the project would be developed when a date for commencement of construction is known. The program would define loss exposure, devise a loss control program, and develop a financial response program. The response program would use commercial insurance and other formal financial alternatives for covering loss beyond that which could be assumed by Northern Tier. (TR 17299-300 Rodehaver; Applic. III, Sec. 8.4.9).

58. Northern Tier would require each contractor on the project to maintain various insurance coverages to protect against loss from bodily injury, property damage, and sudden and accidental pollution damage. In addition, Northern Tier would maintain excess coverage up to the limits typically covered on projects of similar scope. (TR 17300 Rodehaver).

59. During the construction period, Northern Tier would require copies of all reports of incidents that involve property damage or bodily injury. Major incidents, including bodily injury and property damage, would be monitored by Northern Tier and Northern Tier would provide assistance to third parties through direct communication with contractors or their insurance companies where possible and appropriate. (TR 17300-01 Rodehaver).

60. Were the pipeline operational, claims would be submitted directly to Northern Tier. Areas of exposure to loss include injury to persons, damage to property of third parties, and pollution, which could involve either personal injury or property damage. For commercial insurance, specific loss coverage would be negotiated at the time of purchase. (TR 17301-04 Rodehaver).

61. Northern Tier has proposed the following claims-handling procedure to be effective if the project were operational. For undisputed claims, payment can normally be made within ten days of receipt. For disputed claims under \$10,000, if there is a question on either liability or value of the loss, the company would voluntarily submit to arbitration pursuant to RCW Ch. 7.06. For claims that exceed \$10,000, Northern Tier and its insurance carrier would appoint a claims-handling organization to investigate and adjust claims. (TR 17306-08 Rodehaver).

VI. STIPULATIONS

1. The applicant has entered into a number of stipulations with state agencies, local governments, and private parties in an effort to mitigate the adverse impacts of the proposed project. Official notice was taken of all stipulations but no action was taken by the Council to approve or disapprove. These stipulations are as follows:

a. Stipulation between Northern Tier and Washington State Department of Transportation (undated)

b. Stipulations between Northern Tier and the City of Port Angeles:

- (1) Negotiating Guidelines and Procedures (April 15, 1980)
- (2) Amendment to Negotiating Guidelines (June 24, 1980)
- (3) Payment by Northern Tier for review, analysis, and other activities by City of Port Angeles (May 27, 1980)
- (4) Housing Survey and Plan (May 27, 1980)

(5) Water, Sewer, and Solid Waste (June 24, 1980)

(6) Policy of Preferring Qualified Local Workers
(September 2, 1980)

(7) Transportation (February 17, 1981)

(8) Oil Spill Contingency (June 16, 1981)

c. Stipulation between Northern Tier and Lincoln
County (September 2, 1980)

d. Stipulation between Northern Tier and Spokane
County (September 18, 1980)

e. Stipulation between Northern Tier and Adams
County (October 6, 1980)

f. Stipulations between Northern Tier and Port of
Port Angeles:

(1) Regarding Seamen's Center (November 24, 1980)

(2) Regarding Construction Inventory (November 24,
1980)

g. Stipulation between Northern Tier and the East Columbia Basin Irrigation District (August 6, 1980)

h. Stipulation between Northern Tier and the Quincy Irrigation District and the East Columbia Basin Irrigation District (December 3, 1980)

i. Stipulation between Northern Tier and Grant County (December 15, 1980)

j. Stipulations between Northern Tier and Washington State Department of Natural Resources:

(1) Regulatory (January 9, 1980)

(2) Proprietary (January 9, 1980)

k. Agreement and Stipulation re Port Angeles Harbor Facilities (entered into by Port of Port Angeles, ITT Rayonier, Inc., Crown Zellerbach Corporation, Foss Launch & Tug Company, Puget Sound Pilots Association, Port Angeles Salmon Club, and Northern Tier) (March 24, 1981)

l. Stipulation between Northern Tier and King County (May 6, 1981)

m. Stipulation between Northern Tier and Kittitas County (May 19, 1981)

n. Stipulation between Northern Tier and Department of Ecology (June 23, 1981)

o. Stipulation between Northern Tier and Clallam County Fire Protection District No. 3 (June 24, 1981)

p. Amendment to Stipulation between Northern Tier and Lincoln County (July 2, 1981)

q. Amendment to Stipulation between Northern Tier and Adams County (August 26, 1981)

r. Stipulation between Northern Tier and Clallam County (July 27, 1981)

s. Stipulation between Northern Tier and City of Seattle (July 29, 1981)

2. The parties to the stipulations have made a good faith effort to identify the impacts associated with the proposed project and to devise reasonable and feasible measures to mitigate certain of those impacts.

3. Implementation of the above noted stipulations other than those between the applicant and the DNR and the Port Angeles Harbor Facilities stipulations and the non-noticed part of the DOT stipulation is feasible. Terms of the stipulations constitute reasonable mitigation methods.

4. Unresolved issues discussed in the mitigation findings that remain include:

- Oil spill risk caused by vessel casualty or submarine pipeline failures;
- Fire and explosion risk in Port Angeles Harbor;
- Timing of river crossing construction;
- Construction in sensitive areas, except Three Forks Park;
- Socio-economic impacts as follows:
 - Law enforcement in Port Angeles, Clallam and Island Counties;
 - Recreation facilities in Port Angeles;
 - Fire protection in Port Angeles;
 - Educational services in Port Angeles;
 - Risk posed to medical facilities in Port Angeles-Olympic Memorial Hospital.
 - In Clallam County, housing, fishing and tourism losses, electrical energy impacts, ground water contamination, and secondary petroleum-related development.

5. The stipulation covering displacement of harbor facilities and uses does not solve the full range of harbor problems. Impacts on harbor users such as the Thunderbird Boathouse and Blackball Transport, Inc., will continue. The stipulation addresses only the harbor use problems of the signatories. (Oliver & Crutcher, TR 42572.)

6. Portions of the stipulation deal with a harbor management plan. The Port of Port Angeles has no rules and regulations for, or experience with, harbor management or vessel traffic systems. (Hendricks, TR 42105; Oliver TR 42566.)

7. Clallam County and the City of Port Angeles take the position that all federal, state, and local permits and approvals for components contemplated in the harbor management agreement should be obtained before commencement of construction of the Northern Tier facility.

8. The agreement also addresses the circumstances of harbor log storage areas affected by Northern Tier operations. If the agreement were implemented, the only likely consequence to the forest products industry (electric supply and air quality problems aside) would be the oiling of logs in the harbor.

9. Pursuant to the terms of a stipulation, the City of Port Angeles and Northern Tier have agreed to undertake a housing survey.

10. Procedures to implement reviews of construction plans to cross state and county roads are found in the Stipulations between Northern Tier and other parties.

VII. POTENTIAL FUTURE ACTIVITIES

1. The Northern Tier Pipeline Company application is for a crude oil transshipment terminal and pipeline facility. From the first days of the Northern Tier Application, one of the major benefits advocated for the facility the company proposes is that it offers a potential for offloading at Port Angeles the crude petroleum now delivered by tanker to the four existing northern Puget Sound petroleum refineries, thereby greatly reducing the risk of oil contamination of Puget Sound, Admiralty Inlet, North Puget Sound and associated waters. This prospective benefit has been advanced through the course of the case. (case record in general.) The 1979 amendment to the application, which introduced the proposed crossing of Puget Sound, brought the route closer to the North Sound refineries and thereby enhanced the possibility of hookup.

2. Northern Tier has expressly disclaimed having applied to EFSEC for hookup to the North Puget Sound refineries. (Applic. II, 8-20, TR 13726 Beasley). Though the Council was promised that it would, the Northern Tier application does not include an application for those facilities which would be needed to connect the four existing North Puget Sound refineries to the Northern Tier facility. On the record in the present matter, Northern Tier committed to submit a hook-up application considerably before the close of the contested case hearing, but no

such application has been forthcoming. (Crutcher TR 42, Jan. 28, 1980.)

3. The four refineries consist of Atlantic Richfield Company (ARCO) and Mobil Oil at Cherry Point, and Shell Oil and Texaco at Anacortes, Washington. ARCO, Texaco, and Shell representatives testified that their companies oppose mandatory hook-up to Northern Tier because it would be substantially more costly for the refineries to hook up to Northern Tier than to continue with tanker deliveries, because of amortization costs of existing facilities, and because increased costs could render some refinery operations uneconomic.

4. Hook-up of the Northern Tier system to the North Puget Sound refineries is a condition of expedited federal government processing of the Northern Tier application. The decision under Title V of the Public Utility Regulatory Policies Act of 1978 ("PURPA"), announced on January 17, 1980, conditioned expedited processing of the Northern Tier application "on the requirement that the pipeline be made physically available to the four major Puget Sound refineries." The initial right-of-way grant issued to Northern Tier by the U.S. Department of the Interior on April 21, 1980 includes a stipulation which reads in part as follows (Beasley, TR 13687-88):

GRANTEE agrees to make its west-to-east pipeline physically available to the four Puget Sound

refineries: Shell Oil Company, Texaco, ARCO and Mobil. Physical availability means construction of a connecting pipeline from the west-to-east pipeline to said refineries or to other pipelines that connect with said refineries. GRANTEE further agrees that the connecting pipeline shall be in place and shall be fully capable of accepting tendered OIL for transportation to said refineries on or before the time of commencement of PIPELINE operation, except where such capability is impossible for causes not within GRANTEE's control.

5. The physical facilities stated and identified in the application which would need to be built for such a hookup include a third berth at the Port Angeles terminal, a third off-loading and submarine pipeline across Port Angeles Harbor, additional storage tankage at Green Point, storage tankage and pumping facilities near Arlington (Applic. III, p. 8-22.) in Snohomish County and a pipeline connecting the four refineries.

6. Northern Tier's intentions and plans regarding hookup are vague. In its application, the company identified a future third tanker berth and third offloading (submarine) pipeline across Port Angeles Harbor to supply North Puget Sound refineries. Such a proposal and application for hookup are not part of Application 76-2. (NTPC Application 76-2, pp. 8, 20-23.) The proposed third berth for hookup is uncertain based on the record presented, in part because Northern Tier has stated to the Environmental Protection Agency in its Prevention of Significant Deterioration permit application (PSD Air Quality Application) that no third berth is anticipated to meet the

condition of hookup. (PSD Vol. I, pp. 1-1 and 1-2.) The PSD application to EPA states that Northern Tier's demand forecast for Midwest oil has proven too high. (PSD Vol. I, pp. 1-1 and 1-2). No such reduced demand forecasts have been presented to EFSEC.

7. Northern Tier has not done any design studies or reconnaissance for hook-up. (Beasley, TR 13726.) Engineering and environmental studies sufficient for an application have not been performed. (Beasley, TR 13705; 13726-28.) No geological or geotechnical work has been performed and no route selection or financing investigation has been made. (Beasley, TR 13704-6; 13760.)

8. Northern Tier has made no estimate of the economic costs and impacts of hook-up on the four North Puget Sound refineries or on Washington consumers of those refined products. (Beasley, TR 13759.)

9. No reduction in number of tankers on the state's marine waters as far west as Port Angeles would result from hookup to the North Sound refineries. Northern Tier's application states that 116 additional crude oil tanker calls per year at the Northern Tier facility could supply 350,000 barrels per day to the North Puget Sound refineries, were hook-up to occur. Approximately 230 tankers carried a similar quantity of crude

oil to the four North Puget Sound refineries in 1979. Northern Tier's reduction to 116 tankers for the North Puget Sound refineries is unsupported, and its derivation unexplained other than by a general explanation that larger tankers would be used.

(Formway, TR 39974, 40019-20; Ferguson, TR 40883, 40979-80.)

ARCO, Texaco and Shell anticipate little or no change in their tanker fleets with or without hook-up to the Northern Tier facility. They reject the notion of using larger tankers if Northern Tier were built. (Formway, TR 39975; Malseed, TR 40872 and 40906; Ferguson, TR 40883, Ex. 848, p. 9.) Mobil likewise would not change its current fleet size or mix were hook-up to occur. (Ex. 848, p.9)

10. The stated premise in the Federal expediting decision for requiring hook-up was that "This modification will reduce environmental hazards to valuable American and Canadian marine resources by virtually eliminating crude oil tankers in the Sound east of the Port Facility." The record contradicts such a conclusion. (Malseed, TR 40869-71; Ferguson, TR 40877-8, 40883-5.) The two refineries in Tacoma will continue to have crude oil tanker traffic in Puget Sound. Certain types of crude oil presently received at some of the North Puget Sound refineries could not be moved by the proposed Northern Tier pipeline and would continue to move by crude oil tanker in Puget Sound. (Malseed, TR 40870-1; Ferguson, TR 40884-5.) About 50% of the crude received by Shell and Texaco could not move through

the pipeline. (Malseed, TR 40921-2 and 40942-3; Ferguson, TR 40878A and 40965-8.) Refined product shipments and inter-refinery movements of feed stocks would continue with hook-up. (Malseed, TR 40870-1.)

11. Crude oil traffic would also continue to move on Puget Sound to the extent the Puget Sound refineries continued disposing of bunker fuel and selling bunkers to vessels. (Ferguson, TR 40878, 40885-6, 40970-1.) Bunker crude could be moved by tanker or barge to Port Angeles.

12. Elimination of certain crude oil tankers due to hook-up does not physically remove the hazard of that crude oil to Puget Sound since the crude oil shipments would be substituted in the submarine pipeline the applicant has proposed beneath Admiralty Inlet and the Saratoga Passage. Oil spilled west of Port Angeles could reach Puget Sound.

13. Delivery of crude petroleum to the North Puget Sound refineries by way of Northern Tier would substantially increase those refineries' per barrel costs. The present tanker-delivered cost for the leg between Port Angeles and the four refineries ranges between 3¢ and 5¢ per barrel/year. (Formway, TR 39969; Ferguson, TR 40876; Malseed, TR 40905.) Northern Tier did not provide information and cost estimates for hook-up, making tariff estimates more difficult. The North Puget Sound

refineries gave general estimates that 50¢ to \$1.00 per barrel was a likely range. (Formway, TR 39968, 39974; Ferguson, TR 40876-7; Malseed, TR 40905-6). A 50¢ per barrel tariff would result in a cost increase of \$54,750,000 per year or \$63,875,000 per year if 300,000 or 350,000 barrels per day, respectively, were supplied through the Northern Tier system.

14. A study on the economic impacts of hook-up calculated a total additional cost to the four North Puget Sound refineries of \$31,430,500 per year based on a tariff of 35.1¢ per barrel at 350,000 barrels per day. (Ex. 848.) This total cost and tariff assume the hook-up volume of 350,000 barrels per day constitutes one-third of the Northern Tier pipeline throughput from Port Angeles to Arlington. (Mead and Sorenson)

15. The total annual cost of \$31.4 million stated in finding 14 may be increased for several reasons. First, the total annual cost will increase proportionally if the throughput to the North Puget Sound refineries constitutes a higher percentage of total throughput; reduced Midwest demand increases this likelihood. At 933,000 barrels per day, hook-up throughput could constitute 37% of total throughput. Second, the total annual cost of \$31.4 million assumes immediate switch of 50% of the Alaskan fleet to larger tankers. If the reduction for larger tankers is removed, the total cost of hook-up to the refineries is increased to \$37.2 million per year. (Transportation savings

then are only 6¢ per barrel rather than 10.5¢ per barrel.) Third, much higher tariffs and annual costs to the refineries will occur if the Interstate Commerce Commission methodology is used rather than the method assumed in Ex. 848. Fourth, tariffs and costs will increase approximately 10% each year after 1980 until construction of the Northern Tier line is actually completed. Fifth, calculation of tariffs over 20 years, Northern Tier's estimate of the time to retire debt, increases the tariff approximately 50% over the rate in Ex. 848 which assumed 30 years. (Sorenson)

16. Hook-up of the North Puget Sound refineries to the Northern Tier system is unlikely unless mandated.

17. There is no present evidence to suggest that either a crude oil refinery or a petrochemical plant is likely to be built along the terrestrial portion of the pipeline route.

18. A crude oil refinery or petrochemical plant in Clallam County is possible. (See III.Q Private Sector Economics; Secondary Development).

VIII. MONITORING, SURVEILLANCE AND QUALITY CONTROL

1. The recommended disposition requires no findings.

IX. ALTERNATIVES

A. ALTERNATIVE SITES FOR PART OR ALL OF PROJECT

1. Northern Tier, upon abandoning Cherry Point, chose the Port Angeles port site without having demonstrably or seriously considered any alternate sites.

2. More than two years after its choice of Port Angeles, Northern Tier presented Low Point, a largely undeveloped site some 15 miles west of Ediz Hook, as its principal alternate site for study and comparative purposes. Other potential sites exist west of Port Angeles.

3. Facilities at the Low Point alternative could include two single-point moorings that could be located north of Low Point. Submarine pipelines would be constructed from the moorings to the onshore storage facilities, which would be located adjacent to shore, as shown in Figure III-7.2.2 of the Application. The Low Point alternative would involve an additional 28 miles of pipeline and one additional pump station that would be located north of Port Williams. Use of a Low Point site would substantially reduce the consequences of fire and explosion, reduce the risk of damage from anchor-dropping to submarine pipelines, cause less community and harbor disruption, increase the difficulty of handling minor operational spills, decrease the likelihood that a major spill would reach

the inner Sound, increase the risk of collision with in-transit vessels, but decrease the risk of harbor collisions. More streams would be crossed, another pump station would be required, but fewer air quality problems would likely result.

4. An alternate port site west of Port Angeles would be preferable to the site proposed by Northern Tier.

5. Swan Wooster was engaged by Northern Tier to perform an engineering study investigating alternate deepwater port sites (in the Port Angeles vicinity) for suitability as a supertanker terminal. Swan Wooster was also charged with recommending the most feasible type of berth facilities, and preparing preliminary engineering designs and construction cost estimates. At the time Swan Wooster was retained, the Northern Tier board of directors had already selected Port Angeles as the site of its terminal. Swan Wooster's criteria were engineering in nature. Swan Wooster's conclusion that Port Angeles harbor was indeed the most suitable location was based largely on operational factors, such as the comparative ease of servicing vessels at a fixed berth instead of a single point mooring (SPM) and the ease of controlling at least minor operational spills within a partially enclosed harbor. It should be noted that collection of any significant amount of oil in a boom would create explosive vapors likely to require either that a tanker leave its berth or that the port release the boomed oil to re-

duce fire and explosion risks. Currents in excess of 3/4 knots, sufficient wave conditions, or a large enough spill, will cause oil to escape a boom. Swan Wooster did not consider the consequences of fires and explosions, air quality matters, or the trajectories of spilled oil not contained by a Port Angeles Harbor boom.

6. The decision of Northern Tier to locate in Port Angeles Harbor was made no less than three months prior to adoption of the so-called "Evans Statement" in the state's Coastal Zone Management Program. Northern Tier filed an application in March of 1976 with the State Department of Ecology showing Port Angeles as a location.

7. As to a particular location within the Ediz Hook site, the berths were initially placed farther east on the Hook to allow possible construction of a salt terminal and continued, if reduced, use of log booming and rafting areas. The initial site was abandoned for the present one when Swan Wooster learned that the harbor leases in the present location were soon to expire.

8. Northern Tier considered four potential tank farm sites. Lacking condemnation authority, the company could not purchase land at its preferred location, some two miles

from Green Point; but could and did at the present site. The ability to acquire the property determined the site selection.

9. At an early time, Northern Tier considered routing the unloading lines entirely on land to the Green Point tank farm. A general pipeline routing principle is to avoid developed areas wherever possible to reduce the risk of the lines being damaged by other construction activities. Northern Tier did no cost comparison or construction analysis between an all-land route and a submarine route between the berths and the tank farms. The company did not compare the risk or potential impact of a pipeline rupture on an all-land route as opposed to a harbor crossing. The company did not consider a shallow-water crossing around the Crown Zellerbach mill.

10. An alternate location for the Port Williams landfall is a route following the county right-of-way to Marlyn Nelson Park, some 3,000 feet south of the present centerline. Geotechnical, engineering, oceanographic and other studies would be necessary to determine the feasibility of such an alternative. Any construction planned near the park's boat launch should consider mitigation of impacts during the heavy-use summer season.

11. The Northern Tier proposal poses a great oil spill risk to the state's inland marine waters when compared to any alternative system discussed in these proceedings. In its

present form, the Northern Tier proposal contains the longest stretch of submarine line suggested in any proposal. The fact that Northern Tier has not accurately ascertained the geophysical conditions of its chosen site significantly increases the risks.

12. The around-the-Sound route originally proposed by the company was later rejected in favor of the cross-Sound route. No adequate justification has been advanced for the change.

B. ALTERNATIVE PROJECTS AND METHODS

1. The alternative possibility of adding capacity to the midcontinent pipeline system has to a large extent been accomplished, both through physical additions such as expansion of the Koch-Williams Bros. pipeline to Minnesota and through increased availability of capacity in existing lines.

2. Wyoming, North Dakota and Montana crude production has increased to the point where export is now occurring.

3. Other west-to-east pipeline proposals, such as Trans Mountain and Foothills have been made, but no other proposal is now being actively pursued.

4. The Federal Export Administration Act allows crude oil exchanges of Alaska oil with Canada or Mexico without obtaining Congressional approval. (Tussing, TR 22949.) Canadian policy permits the exchange of Canadian oil for oil of North American origin. (Tussing, TR 22951.) A volume of U.S. and Canadian exchanges exists and is occurring.

5. The three main producers of Alaska North Shore (ANS) crude oil have signed an agreement to build and ship ANS crude through a new 36 inch pipeline, seventy-eight miles long across the Isthmus of Panama and parallel to the Canal. The pipeline will have a capacity of more than 500,000 barrels per day and involves a construction cost of \$250 million. (Phillips, TR 40808-49.) The new Panama Pipeline will allow a reduction in transportation costs for ANS crude now being shipped through the Canal. (Phillips, TR 40843).

C. NO ACTION

1. Approval now could close off future options. (Phillips, TR 40794).

2. Approval of a major capital construction project is not without potential harm to the public interest if the project fails for lack of demand. (Tussing, TR 23083-84).

3. Tankers presently move all available petroleum from Valdez to destinations or transshipment points. The petroleum moves to market.

4. Petroleum exchanges with Canada continue.

5. Other proposals for transshipment have been advanced. Throughput agreements for the Trans-Panama Pipeline System have been signed and construction of that line is impending; no other proposals are being actively pursued at present.

X. COMPLIANCE WITH GUIDELINES

The Council's first obligation under RCW 80.50.040(10) is to prepare a written report to the Governor containing a statement "indicating whether the application is in compliance with the Council's guidelines." At the time Application 76-2 was first filed, the statement read "indicating whether the application is in compliance with the Council's topical guidelines." Section X of this Order addresses that responsibility.

The Council's guidelines, topical or otherwise, are presently contained in sections 110 through 620 of Washington Administrative Code (WAC) Title 463, chapter 42. The provisions of this chapter were first filed on February 4, 1977, some seven months after the present application was filed. Northern Tier's application, in its 1979 amended form, bespeaks an effort to comply with the cited provisions of chapter 42. Findings 1 through 6 below address the extent to which Application 76-2 complies with the (topical) guidelines now set forth in WAC 463-42-110 through 620.

Before February 4, 1977, the Council's topical guidelines were set forth in what was then WAC 463, chapter 12. Those provisions, carried over from the Council's predecessor agency, the Thermal Power Plant Site Evaluation Council, by RCW 80.50.800,

were written to serve as topical guidelines only for the siting of thermal power plants. At the time RCW 80.50.800 was passed, matters were still pending on applications for thermal power plant siting authority which had been made to the predecessor agency. A discussion beginning below at finding 7 discusses the extent to which Application 76-2 deals with the topical guidelines set forth in former chapter WAC 463-12.

1. No party has challenged Northern Tier's compliance with the following Council guidelines: WAC 463-42-110 (graphic material), -120 (sources of information), -170 (description of applicant), -240 (energy transmission systems), -260 (multipurpose use of transmission routes), -270 (safety where public access is allowed), -280 (radiation levels), -360 (transportation facility construction), -370 (transportation of fuels and waste products), -410 (compatibility with water quality standards), -430 (system of heat dissipation), -440 (characteristics of aquatic discharge systems), -470 (wastewater treatment), -480 (NPDES application), -500 (air pollution control), -510 (air pollution impact), -520 (emission control), -540 (odor control) and -590 (noise and glare).

2. Other parties have challenged Northern Tier's compliance with the following Council guidelines: WAC 463-42-130 (construction and study schedules), -140 (potential for future activities at site), -150 (analysis of alternatives),

(-160 (safety standards compliance), -180 (site description),
-190 (legal descriptions and ownership interests), -200 (land
use plans and zoning ordinances), -210 (construction on site),
-220 (contour maps), -230 (access), -250 (criteria, standards
and factors utilized to develop transmission route), -290 (pro-
tection from natural hazards), -300 (security concerns), -310
(emergency plans), -320 (earth removal), -330 (surface-water
runoff), -340 (landscape restoration), -350 (transportation
impact), -380 (environmental safeguards---geologic and hydrolo-
gic survey), -390 (water source and usage), -400 (water supply),
-420 (spillage prevention and control), -450 (hydrographic study
of waters), -460 (ground water activity), -490 (solid wastes
disposal), -530 (dust control), -550 (inventory of potentially
affected vegetation, animal life, and aquatic life described),
(-560 (impact of construction and operation on vegetation, animal
life, and aquatic life), -570 (description of measures taken to
protect vegetation, animal life, and aquatic life), -580 (aesthe-
tics), -600 (energy consumption), -610 (historical, archaeologi-
cal, and recreational site preservation/creation), and -620
socioeconomic impact).

3. Northern Tier has complied with the following
guidelines not cited in finding one above: WAC 463-42-130,
-140, -200 (compliance with the laws is not the issue here),
-300, -350, -400, -460 (risk is not the issue at this point),
-490, -530, -580, -600 and -620 (propriety of analysis is not
the issue.)

4. Northern Tier has not complied with the following Council guidelines: WAC 463-42-150, -160, -180, -190, -210, -220, -230, -250, -290, -310, -320, -330, -340, -380, -390, -420, -450, -550, -560, -570 and -610.

5. Northern Tier's non-compliance with the following guidelines is inconsequential or could be reasonably cured in the course of post-certification design: WAC 463-42-160, -190, -220, -230, -320, -330, -340 and -610.

6. Northern Tier's non-compliance with the following guidelines is consequential, cannot be cured after certification in a manner consonant with the public interest, and is indicative of the basic inadequacy of this application: WAC 463-42-150, -180, -210, -250, -290, -310, -380, -390, -420, -450, -550, -560 and -570. Detailed analysis is presented in prior sections of this order.

a. As to WAC 463-42-150, the applicant did not sufficiently analyze the consequences of fire and explosion in urban as compared to rural environments, and did not usefully compare its cross-Sound route with any alternative.

b. As to WAC 463-42-180, the application did not describe all the general geologic characteristics of parts of its submarine route, and did not describe the effects of storms on marine current movement.

c. As to WAC 463-42-210, the applicant's description of facility costs omits several significant components, such as working capital and interest during construction.

d. As to WAC 463-42-250, the applicant indicated certain factors which caused it to abandon a different submarine route across Admiralty Inlet, but neither set forth standards nor explained how any such standards might have been satisfied by selection of the three portions of its route which incorporate submarine crossings of the state's marine waters. Route selection criteria have been mentioned which mitigate against crossing Habitat Management Areas and parklands.

e. As to WAC 463-42-290, the applicant has not described a means of protecting against storm-induced marine currents or landslides originating near the submarine route. It has not described methods for protecting the submarine pipe against liquefaction hazards in high current areas. The applicant did not describe the full range of force and hazard which might be encountered from currents, and cannot be said to have described means of protection against such hazards.

f. As to WAC 463-42-310, the applicant has described no emergency plan which would assure the public safety in the event of a fire or explosion at its marine terminal site or in Port Angeles Harbor. The applicant's oil spill response

plan for surface water spills is understandably embryonic; its plan for controlling submarine pipeline oil spills gives no present or prospective assurance of protection.

g. As to WAC 463-42-380, the Council has given the applicant two opportunities to perform such surveys for its Admiralty Inlet and Saratoga Passage crossings. On the second occasion, the Council strongly and specifically indicated its informational requirements. Nevertheless, the applicant has not presented the Council with the results of a comprehensive hydrologic survey or the results of a comprehensive geologic survey. The applicant did not meter currents long enough or accurately enough, did not meter at all over much of the routes or in enough locations, and did not evaluate well enough the variety of non-tidal currents for the applicant's hydrologic survey to be considered comprehensive. Likewise, the applicant took too few core samples, omitted samples entirely from areas too broad, and analyzed too inadequately features such as liquefiable soil, sand waves and boulders for its geologic survey to be regarded as comprehensive. An acoustic subbottom profile grid, for example, is not an adequate substitute for a core sample.

h. As to WAC 463-42-390, the applicant has not provided a description of water rights, withdrawal authorizations or restrictions relating to proposed sources, and the

Council is thereby handicapped in treating the interests of other water users.

i. As to WAC 463-42-420, the applicant has not accurately described the amounts of crude oil which might be accidentally discharged from the various submarine portions of its pipeline transmission route.

j. As to WAC 463-42-450, the applicant has not presented the range of data called for in regard to discharge locations and does not propose to do so until 20 days before commencing discharges.

k. As to WAC 463-42-550, the applicant only partly described affected vegetation, animal and aquatic life.

l. As to WAC 463-42-560, the applicant did not properly describe the magnitude of impacts on vegetative, animal and aquatic life from abnormal incidents.

m. As to WAC 463-42-570, the applicant never presented an insurance or bonding arrangement, but only a generalized assessment of the feasibility of such arrangements.

7. Under the former provisions of WAC 463 chapter 12, as in effect on July 6, 1976, the provisions of WAC 463-42-

110 do not apply, and the provisions of WAC 463-12-150 would apply prospectively.

8. The applicant has complied with the provisions of former sections WAC 463-12-130, 140 and 155.

9. Various uncited provisions of other former sections have been complied with; have not been complied with but can reasonably be met; or do not apply.

10. The applicant did not comply with particular subsections of former sections WAC 463-12-100, 105, 115, 120, 125 and 135. As set forth below, the failures to comply are consequential, not curable on the record, and indicative of an inadequate application.

a. The applicant's failure to provide geological, climatological and other information, as required by WAC 463-12-100(1), is discussed above in finding 6, as is the applicant's failure to provide cost information required by WAC 463-12-100(2), the applicant's failure to describe methods of protecting the facility against natural disasters as required by WAC 463-12-115(5), the applicant's failure to furnish a comprehensive geologic survey as required by WAC 463-12-120(4), the applicant's failure to identify outfall configurations and related information, and hydrographic and other studies as provided in

WAC 463-12-125(6 and 7), and the applicant's failure to submit descriptions of vegetation, fish and wildlife, which were required by WAC 463-12-135.

b. WAC 463-12-100(4) required a description of need for power, financing and marketing arrangements, and cost of power production. The applicant did not furnish such information.

c. WAC 463-12-105 required a description of ownership interest in the site, land use plans, zoning ordinances, an occupancy survey within a 25 mile radius, and attestations by local government executives as to the consistency of the proposal with land use and zoning provisions. The applicant did not supply such information.

XI. PREEMPTION FINDINGS

1. The issue of preemption is not reached.

XII. CONCLUSIONS OF LAW

1. The Energy Facility Site Evaluation Council of the State of Washington has jurisdiction over the location, construction, and operation of energy facilities within the State as specified and described in RCW 80.50.020.

2. The application of the Northern Tier Pipeline Company for a proposed oil port, tank farm, and crude oil trans-shipment pipeline meets the specifications contained in RCW 80.50.020 and is properly under the Council's jurisdiction.

3. The Council has satisfied the statutory requirements contained in Chapter 80.50 RCW and in Chapter 43.21 RCW (SEPA) by evaluating the application; commissioning independent consultant review; conducting zoning and land use consistency and compliance hearings; conducting evidentiary hearings into compliance of the application with the Council's guidelines as set forth in WAC 463, Chapter 42; conducting required and optional public hearings; developing and issuing a draft and final Environmental Impact Statement; and developing from the evidence, exhibits and other materials presented to the Council, these findings of fact, conclusions of law and order, constituting the required recommendation of the Council to the Governor of the State of Washington.

4. The applicant has not complied with the Council's current guidelines as set forth in WAC 463, Chapter 42, in particular Sections 150, 180, 210, 250, 290, 310, 380, 390, 420, 450, 550, 560, and 570. Certain of the applicant's failures to comply with Council guidelines are substantial, non-curable on this record, and representative of an inadequate application.

5. The legislature has determined a need for additional energy facilities in Washington State. In response to that need, the legislature created the Energy Facility Site Evaluation Council and charged it with overseeing procedures for evaluating sites for energy facilities, and with recommending to the Governor approval or disapproval with regard to each proposed facility. The legislature did not quantify the demand for particular energy facilities which might be proposed to the Council.

6. While the Council has attempted to inform itself on the broad question of national need for crude oil transportation facilities, it is neither possible nor appropriate for the Council as a state agency to make a definitive determination on the national need for the facility proposed by the applicant.

7. In March, 1978, the Council, acting on behalf of the State of Washington and its citizens, made a formal request to the federal government for a decision on whether or not the proposed facility was needed to provide crude oil to other regions or the nation as a whole. A definitive response was never received by the Council. No clear showing of national need was made on the record of this case.

8. At least three major benefits to the citizens of this state have been set forth in the application for the proposed facility. The first is that, should the facility be built, monetary benefits in the form of jobs and taxes would accrue, and would provide economic benefits directly and indirectly to affected citizens, some local governments, and the state itself. These economic benefits, while valuable, would be limited in amount and over time, in comparison to the economic resources placed at risk through construction and operation of the proposed facility. The second projected benefit, that a common use facility at Port Angeles would reduce significantly the risk of a major spill reaching the state's inner marine waters, does not have the persuasive force that it did in 1976 for several reasons: because recent wind, current, and oil spill trajectory studies show that a very likely path of a major Port Angeles spill is east; because a promised application to the Council for facilities necessary to hook up the Puget Sound refineries was never delivered; and because the applicant's

inadequate reconnaissance of its submarine route makes it impossible to determine that a pipeline through those portions of the state's inner marine waters would not be unacceptably susceptible to a spill. The third projected benefit, that petroleum supplies to eastern Washington would be assured, has some merit, but now appears less plausible for the following reasons: Northern Tier no longer contends that a refinery might be built in eastern Washington; supplies arriving in Montana via Northern Tier would likely increase the price of product in eastern Washington; no supply-induced shortages of petroleum in eastern Washington have been shown, though marketing reorganization activities may have caused some eastern Washington consumer difficulty and more product could be moved to eastern Washington from West Coast refineries through rail, truck, barge and potential product pipeline facilities than is presently moved. However, this said, the importance of an adequate petroleum supply to the economy of eastern Washington cannot be overstated.

9. Implicit in the charge by the legislature to the Council to balance demand against the public interest, and the legislative grant of power to the Council to recommend a position of acceptance or rejection of an application, is the recognition that the demand for a particular facility, while it exists, may not be great enough to outweigh the facility's net detrimental effects on the broad interests of the public.

10. On balance, it is not possible for the Council to determine that the projected benefits of the proposed facility will outweigh the projected risks to the environment, health, welfare, and safety of the people of this state.

11. Technically sufficient operational safeguards have not been proposed by the applicant to prevent, detect, minimize and contain oil discharges from the submarine portions of the pipeline and thereby protect the welfare of state citizens who depend on Puget Sound, Admiralty Inlet, the Strait of Juan de Fuca, and associated waters for food, income, and recreation. No reasonable conditions can be imposed on the applicant's proposed submarine route because the applicant has not demonstrated that it has enough accurate data and site-specific information to understand the geology and hydrology of its chosen route, in order to have identified, and designed for, major hazards to construction and operation.

12. The applicant's analysis of risks associated with spills from portions of the underwater pipeline is based on understatements: of the maximum amount of oil which may be spilled from these segments of the pipeline; of the maximum currents which may be encountered along the submarine route; of the likelihood of pipeline exposure through soil movement or placement of pipe on boulders; and of the portions of the sub-

marine route susceptible to liquefaction in a seismic event of the scope encountered in the region during the last 35 years.

13. The proposed oil port is not a pipeline. That it would supply a pipeline does not at all increase the safety of the port. In recent years, ports capable of receiving super-tankers have been sited many miles from urban communities. The port site proposed by the applicant was selected without prior analysis of the potential risk to the Port Angeles community. Subsequent studies which were made of the port site were for the primary purpose of justifying the prior decision. The applicant's port site, chosen largely because it offered a sheltered spot for berths and some advantages in controlling small spills, is located less than 7,000 feet from downtown Port Angeles. Any ship's maneuvers in the harbor would lessen this distance. An emergency response of the order and volume which can be provided at Long Beach, California, or Seattle, Washington, is virtually impossible in an isolated community such as Port Angeles. No sufficient reason has been shown to put the people of Port Angeles and their property at risk from the applicant's proposal. Locating the port in a remote and relatively unpopulated area would not eliminate the possibility of an explosion or spill fire, but it would tremendously reduce the potential consequences should either event occur.

14. The vast inland marine waters of Puget Sound constitute one of the state's greatest resources. The proposed facility threatens to have substantial adverse impacts on the Strait of Juan de Fuca, Admiralty Inlet, Puget Sound, and the waters east of Haro Strait. The state's inland marine waters support a large and growing water-oriented economy. They are biologically the most productive waters in the United States, perhaps in the world. Their enormous resource value stems from their combined nature as a large, rich, intricate, protected and deep body of water; they can be considered a marine lake. Their present and potential biological productivity is unparalleled and is the focus of much commercial activity and the source of many jobs. These waters currently provide food and recreation, and currently receive marine traffic including crude oil tankers comparable in size to any which call in the U.S. The size, depth and protected portions of these waters make them suitable as a practical matter for consideration as a future locale for the transshipment of petroleum. Any transshipment proponent should carefully consider the intricacy, cleanliness and richness of these waters. Any such proponent should approach these waters with a sensible respect for the complex currents, soils and geology, wind and biota, which have been shown to exist there. Any such proponent should learn the circumstances on the seabottom before choosing a submarine route. If the actual circumstances of a proposed submarine route cannot be demonstrably engineered, the state's inland marine waters should be skirted.

15. The applicant has never presented the Council with any detailed analysis of why it is preferable to go under the Sound rather than around it. The applicant has presented studies on its preferred route south of Protection Island, and has contrasted certain aspects of that route with an alternate north of the same island, but it has not presented more than the barest generalities on why the Sound as a whole should be put at risk from a pipeline. Two reasons apparent from the record of this case are: on a tariff allocated on a per-mile basis, the applicant would, in the event of hookup (for which an application has not been made), be able to offer North Sound refineries a tariff comparably lower than what would result from an around-the-Sound route; and second, the timing of the applicant's decision allowed a cross-Sound route to be covered in the Federal Government's Environmental Impact Statement. Three of the applicant's stated reasons for the submarine route are in error: it will cost marginally more, not less to go under the Sound; Northern Tier had committed to rerouting out of the Tacoma and Seattle watersheds before, not when it determined to cross under the Sound; and the risk to the state's resources from the present alignment is incomparably greater, not less, than that posed by the prior route.

16. The contingent costs to the public of any major fire, explosion or spill, and the possible day-to-day costs to the public of subsidizing new generating capacity necessary to

meet the substantial electric demand made by Northern Tier's pump stations may become unreasonable.

17. River crossing and flood plain problems are solvable through certification agreement conditions, although the applicant's proposed approach to crossing many of the state's streams is inadequate.

18. The applicant has not met its responsibility to prove that the holders of existing water rights would not be adversely affected by water withdrawals necessary for testing of the pipeline prior to operation.

19. Pipelines are generally a proven, safe, and efficient technology. The efficiency of a pipeline is demonstrable; that the industry has, in general, proven itself and that most lines at most times are quite safe does not confer those two qualities automatically on any particular line proposed. A properly designed and engineered line on a well-studied and well-chosen site is part of the proven and safe technology. The port site, the Admiralty Inlet and Saratoga Passage crossings, and many of the river and flood plain crossings were not well studied, particularly before they were chosen. The Council knows enough about the conditions under Admiralty Inlet and Saratoga Passage to appreciate the need for careful and thorough reconnaissance and study of these conditions prior to route

selection, design and approval. The applicant's design and engineering make broad assumptions about physical seabottom circumstances which should have been, but have not been, defined. The Council's examination of proposals for other pipelines in other places indicates that adequate data gathering and analysis can be accomplished within reasonable time and cost limits.

20. The seismic design for the facility proposed by the applicant would provide protection for an event which is significantly less than what the region has experienced during the last 35 years. Ground acceleration levels are generally discussed in terms of bedrock values; but except between Sprague and Plaza, Northern Tier does not propose to build in much bedrock. The actual scope of the 1949 and 1965 seismic events in the Puget Sound region exceeded the applicant's proposed level.

21. The applicant proposes to go into business as a common carrier utility, a public service company, in a particular business normally regulated in this state by the Washington Utilities and Transportation Commission. Certain public service obligations over and above those attendant on an ordinary business are assumed by any entrant into a regulated public service industry. Protecting the public's interest may outweigh permitting a particular proposed facility. The Council is not limited to mitigation measures in meeting the public's legitimate concerns. The determination of whether a facility of this kind

should be built and placed in operation cannot be left to the financial marketplace; private markets are not a proper forum for determination of the public interest.

22. Portions of the applicant's proposal are inadequate. The submarine pipeline routing, study and design, and the potential consequences of a major fire or explosion in the Port Angeles Harbor are not curable, cannot be minimized on this record, and are inconsistent with the premises of the public interest set forth in RCW 80.50.010(1) and (2).

23. Apart from conclusion 22 above, the rest of the applicant's site and transmission line route would be acceptable, given the establishment of proper conditions and mitigation efforts.

24. The Council should not issue a National Pollutant Discharge Elimination System (NPDES) Permit for the facility as presently proposed.

25. The Governor of the State of Washington should reject Application Number 76-2, Northern Tier Pipeline Company.

From the foregoing findings of fact and conclusions of law, the Council issues the following order.

O R D E R A N D R E C O M M E N D A T I O N

The Energy Facility Site Evaluation Council orders, declares and determines that Application 76-2 of the Northern Tier Pipeline Company does not comply with the Council's guidelines and that criteria specific to the site and pipeline routing clearly establish that the port site and submarine pipeline site are improper. The Council recommends that the Governor of the State of Washington reject Application 76-2 for certification of a crude oil port, tank farm and crude oil transshipment pipeline and associated facilities. The Council further orders that its recommendations as embodied in the above findings of fact and conclusions of law be reported and forwarded to the Governor of the State of Washington for consideration and action.

ENTERED INTO this 27th day of January, 1982

WASHINGTON STATE ENERGY FACILITY
SITE EVALUATION COUNCIL

By 

Nicholas D. Lewis
Chairman